

Claims

I claim:

- 5 1. An actuator device adapted to move an object, the actuator device comprising:
 a motor connectable with a power source;
 a rotatable member coupled to the motor for rotation about a central axis;
 a swivel arm positioned on the rotatable member for rotation about the central
 axis relative to the rotatable member, the swivel arm receiving movement from a driving
10 portion of the rotatable member; and
 a cable coupling the swivel arm with the object, the object being movable in
 response to movement of the swivel arm.
2. The actuator device of Claim 1, further comprising a gearbox coupling the
15 motor to the rotatable member, the gearbox being configured to increase torque output of the
 motor to the rotatable member.
3. The actuator device of Claim 1, further comprising a housing enclosing the
 rotatable member and swivel arm, wherein the cable is retracted and extended relative to the
20 housing by the rotatable member and swivel arm to move the object.
4. The actuator device of Claim 1, wherein the rotatable member is a timing
 wheel.

5. The actuator device of Claim 1, wherein the driving portion of the rotatable member includes a protrusion extending therefrom, the protrusion being positioned on the rotatable member a distance from the central axis.

5 6. The actuator device of Claim 1, further comprising a limit switch positioned adjacent the rotatable member, the limit switch being selectively triggered by the rotatable member to selectively electrically connect the motor and the power source.

7. The actuator device of Claim 6, wherein the rotatable member includes a
10 recess formed in an outer peripheral surface of the rotatable member, and wherein the limit switch is selectively triggered by the recess.

8. The actuator device of Claim 7, further comprising a second limit switch
positioned adjacent the rotatable member, the second limit switch being selectively triggered
15 by a second recess formed in the outer peripheral surface of the rotatable member.

9. The actuator device of Claim 1, wherein the cable includes an eyelet attached thereto, and wherein the eyelet engages a second protrusion extending from the swivel arm for connection with the swivel arm.

20 10. The actuator device of Claim 1, wherein the cable is resiliently biased toward the object.

11. An actuating system comprising:

an actuator device including

a motor connectable with a power source,

a rotatable member coupled to the motor for rotation about a central

axis,

a protrusion extending from the rotatable member, the protrusion

positioned on the rotatable member a distance from the central axis,

a swivel arm positioned on the rotatable member for rotation relative to
the rotatable member about the central axis, the swivel arm receiving movement from

the protrusion, and

a cable coupled to the swivel arm; and

an object coupled to the actuator device by the cable, the cable being moved in
response to rotation of the swivel arm to move the object.

12. The actuating system of Claim 11, further comprising a gearbox coupling the
motor and the rotatable member, the gearbox being configured to increase a torque output of
the motor to the rotatable member.

13. The actuating system of Claim 11, further comprising a housing enclosing the
rotatable member and swivel arm, wherein the cable is retracted and extended relative to the
housing by the rotatable member and swivel arm to move the object.

14. The actuating system of Claim 11, wherein the rotatable member is a timing
wheel.

15. The actuating system of Claim 11, further comprising a limit switch positioned adjacent the rotatable member, the limit switch being selectively triggered by the rotatable member to selectively electrically connect the motor and the power source.

5 16. The actuating system of Claim 15, wherein the rotatable member includes a recess formed in an outer peripheral surface of the rotatable member, and wherein the limit switch is selectively triggered by the recess.

10 17. The actuating system of Claim 16, further comprising a second limit switch positioned adjacent the rotatable member, the second limit switch being selectively triggered by a second recess formed in the outer peripheral surface of the rotatable member.

15 18. The actuating system of Claim 11, wherein the cable includes an eyelet attached thereto, and wherein the eyelet engages a second protrusion extending from the swivel arm for connection with the swivel arm.

19. The actuating system of Claim 11, wherein the cable is resiliently biased toward the object.

20 20. The actuating system of Claim 11, wherein the object includes a lever for a clutch/brake assembly, wherein the lever is selectively actuated to engage and disengage the clutch/brake assembly, and wherein the cable is coupled to the lever to engage and disengage the clutch/brake assembly in response to movement of the cable.

21. The actuating system of Claim 20, further comprising a spring coupled between the cable and the lever.

22. The actuating system of Claim 11, wherein the object includes an idler pulley
5 of a pulley system, wherein the idler pulley is selectively actuated to engage and disengage a belt in the pulley system.

23. The actuating system of Claim 11, wherein the object includes a powered implement carried by a motorized vehicle.

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24. The actuating system of Claim 23, wherein the implement includes a mower deck carried by a riding lawnmower, and wherein the actuator device is configured to raise and lower the mower deck relative to the riding lawnmower.

25. An actuating system comprising:

an actuator device including

a motor connectable with a power source,

a rotatable member coupled to the motor for rotation about a central

5 axis,

a protrusion extending from the rotatable member, the protrusion

positioned on the rotatable member a distance from the central axis,

a swivel arm positioned on the rotatable member for rotation relative to
the rotatable member about the central axis, the swivel arm receiving movement from

10 the protrusion, and

a cable coupled to the swivel arm for movement in response to
movement of the swivel arm; and

a lever of a clutch/brake assembly, wherein the lever is selectively actuated to
engage and disengage the clutch/brake assembly, and wherein the cable is coupled to the

15 lever to engage and disengage the clutch/brake assembly in response to movement of the
cable.

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